

WR-35 Rev. 8/23/13 Page _1_ of _4_

State of West Virginia Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work



API <u>47</u> _ 15 _ 028			District UNION	
Quad ELKHURST 7.5'			Field/Pool Name	
Farm name WILLIAM C. MI			Well Number KING #	
Operator (as registered with th	e OOG) RAVEN RIDGE	ENERGY, LLC	Well Ivallibel	
Address 3230 PENNSYLV	ANIA AVENUE City CI		State WV	_{Zip_} 25302
As Drilled location NAD 83 Top hol Landing Point of Cur Bottom Ho	le Northing N/A ve Northing N/A	Ea	nd deviation survey asting N/A sting N/A N/A	
Elevation (ft) 1,208'	_ GL Type of Well	■New □ Existing	Type of Report □I	nterim Final
Permit Type Deviated	□ Horizontal □ Horizo	ontal 6A	Depth Type \Box	Deep Shallow
Type of Operation □ Convert	□ Deepen ■ Drill	□ Plug Back □ Red		Stimulate
Well Type 🗆 Brine Disposal	□ CBM ■ Gas ■ Oil □ Se	econdary Recovery	Solution Mining Storag	ge □ Other
Type of Completion □ Single Drilled with □ Cable ■ Ro	■ Multiple Fluids Prod	uced Brine BGas		
Drilling Media Surface hole Production hole Air M			hole Air 🗆 Mud 🗆	Fresh Water Brine
Mud Type(s) and Additive(s) SOAP				
Date permit issued 6/26/2	Date drining com		Date diffing ceas	ed10/22/2013
Date completion activities began Verbal plugging (Y/N) N		Date completion ac	Granted by	ONAII and Gas
Please note: Operator is require	ed to submit a plugging applic	cation within 5 days of		JN I 6 2014
Freshwater depth(s) ft	200'	Open mine(s) (Y/N)	depthsEnvironm	epartment of
Salt water depth(s) ft	1150' - 1650'	Void(s) encountered		N Protection
- 3 - 3	NE OF RECORD	Cavern(s) encountered		N
Is coal being mined in area (Y/I	N) N	and a second	(2/11) depuis	
5				Reviewed by:

API 47- 15	_ 02887	Farm na	me_WILLIAM	C. MITC	HELL	We	ll number_KII	NG #9	
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)		ent circulate (Y/N) le details below*
Conductor	14 1/4"	13 3/8"	30'	NEW	T	- 42 LBS	NONE		ND -IN BY RIG
Surface	12 1/4"	9 5/8"	380'	NEW		- 29 LBS	120'	 	YES
Coal									120
Intermediate 1	8 3/4"	7"	1899'	NEW	J-55	- 17LBS	335'	 	VEC
Intermediate 2					- 000	17200	333	+	YES
Intermediate 3								 	
Production	6 1/4"	4 1/2"	2275'	NEW	1.55	10.5 LBS	NONE	 -	
Tubing					3-33 -	10.5 LBS	NONE	 	N/A
Packer type and de	epth set								
Comment Details									
CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg		ield ³ /sks)	Volume	Ceme		WOC
Conductor	CLASS I	10 - RIG		<u> </u>	/8KS)	(ft. ³)	GROUND		(hrs)
Surface	CLASS I	120	15.6		.18	141.6	GROUND		8
Coal						141.0	GICOULD	LEVEL	8
Intermediate 1	CLASS I	300	15.6	1	.18	354	GROUND	LEVEL	
Intermediate 2			10.0			334	GROUND	LEVEL	8
Intermediate 3									
Production	CLASS I	80	15.6	1	.18	04.4	157	<u></u>	
Tubing			10.0		.10	94.4	157	3	8
) 2520' tion penetrated <u>v</u> cedure			Loggers Tl Plug back	` ' —				
Kick off depth Check all wirel		a caliper	density	□ deviate gamma			nduction emperature	□sonic	
Well cored		 Convention 					collected \square		
DESCRIBE TH	IE CENTRALIZ I LATCH DOWN BAFFLE IN S	ZER PLACEMEN	NT USED FOR	EACH CA	SING ST	TRING 40			" and Gas
								JUN 1	3 2014 ——
		S SHOT HOLE			TAILS		MAY	<i>i</i> ~	tment of
WAS WELL C	OMPLETED OF	PEN HOLE?	□ Yes ■ No	DETA	ILS				
WERE TRACE	RS USED 🗆 Y	res 🖪 No	TYPE OF TRA	ACER(S) U	SED				

API 47- 15 _ 02887

02887 Farm name_ WILLIAM C. MITCHELL

__Well number_KING #9

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	P (1) (2)
1	12/18/2013	2190'	2074'	16	Formation(s) WEIR
2	12/18/2013	2094'	2070'	20	SQUAW
3	12/18/2013	2051'	2031'	18	INJUN
					INCOM

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

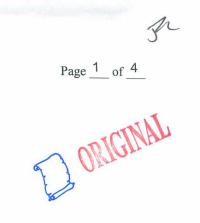
Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/19/13	35	2410	2800	1552	20,000	550	0
2	12/19/13	31	2196	2415	1526	18,000	419	0
3_	12/19/13	28	3254	2170	1732	12,000	311	0
							O#:	RECEIVED of Oil and Gas
							OIIIC	of Oil and Gas
								
							J	UN 1 6 2014
				-			MAC	
							Environ	repartment of
							חמסוועיי	Pepartment of Pental Protection
								Trockly

Please insert additional pages as applicable.

API 47- 15	_ 02887	Farm	name_WILLIA	M C. MIT	ГСН	ELL	Well	number	KING	G #9
PRODUCING	FORMATION(S)	<u>DEPTHS</u>							
WEIR			2074' - 2190'							
SQUAW		 -		TVD			MD)		
		-	2070' - 2094'							
INJUN	-		2051' - 2031'							
Please insert ad	lditional pages a	s applicable.								
GAS TEST	■ Build up	Drawdown	□ Open Flow		OIL	TEST A	Flow	□ Pump		
SHUT-IN PRE	SSURE Surf	ace 220	_psi Botto	m Hole		psi	DURA	TION O	F TE	ST <u>12</u> hrs
OPEN FLOW	Gas	Oil	NGL		Wa	ater	GASI	MEASU	DED	DV
	20 mcf	pd	bpd	_ bpd		bpd	■ Estin	mated	□ Or	ifice □ Pilot
LITHOLOGY/	ТОР	ВОТТОМ	ТОР	BOTTON	.1					
FORMATION	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT	DEPTH IN	-	DESCRIBE	DOCK TV	DE AND	DECOL	AD OUT ANY WITH A STREET
	NAME TVD	TVD	MD	MD	1 1					RD QUANTITYAND INE, OIL, GAS, H₂S, ETC)
SAND/SHALE	0	1590'	0			THEOTH	11/1) CHO.	SIIWAII	EK, DK	INE, OIL, GAS, H ₂ S, ETC)
SALT SANDS	1590'	1680'								
SAND/SHALE	1680'	1838'								
LITTLE LIME	1838'	1892'								
PENCIL CAVE	1892'	1906'								
BIG LIME	1906'	2024'								
INJUN	2024'	2078'								
SQUAW	2078'	2102'								
SAND/SHALE	2102'	2142'								
WEIR	2142'	2200'								
SAND/SHALE	2200'	2491'								
BEREA	2491'	2523'								
Please insert ad	ditional pages as	s applicable.								
Drilling Contract			110							
Address 3230 Pt				CHARLES	TON		_	1407		05000
Address ozor i	- INIOTEVANIA AV	LITOL	City	CHARLES	TON		State	VVV	_ Zip	25302
Logging Compa	ny NABORS CO	OMPLETION &	PRODUCTION,	CO.						
Address 82 ELK			City	BUCKHAN	NON		State	wv	_ Zip	26201
Cementing Com	nany ALLIED O	IL AND GAS S	ERVICES, LLC							
Address 100 HO			City	CLARKSBI	JRG		_ State	wv	_ Zip	26301
Stimulating Cor			E CORPORATI		_					
Address 109 SO			City	ZANESVIL	LE		_ State	OH	_ Zip	43701
Please insert add										
Completed by	DANIELLE N. B	oggs				Telephone	304-344	-9291		
Signature	he n.	Buggez	Title OF	PERATIONS				Date 5/3	30/2014	1
Submittal of Hy	draulic Fracturii	ng Chemical D	isclosure Infor	mation	Atta	ach copy of	FRACE	OCUS 1	Regist	ry

State of West Virginia Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work



API <u>47</u> - <u>15</u>		District_U	NION
Quad ELKHURST 7.	5' Pad Name		Name
Farm name ROBERT		Well Num	
Operator (as registered	with the OOG) RAVEN RIDGE	ENERGY, LLC	
			WV Zip 25302
T Landing Point	op hole Northing N/A	illed plat, profile view, and deviation Easting N/A Easting N/A Easting N/A	survey
Elevation (ft) 1,285'	GL Type of Wel	l ■New □ Existing Type of	of Report □Interim ■Final
Permit Type Devi	ated Horizontal Horiz	contal 6A Vertical Depth	n Type □ Deep ■ Shallow
Type of Operation □ Co	onvert 🗆 Deepen 💄 Drill	□ Plug Back □ Redrilling □	Rework Stimulate
Well Type □ Brine Dis	posal □ CBM ■ Gas ■ Oil □ S	Secondary Recovery	ing □ Storage □ Other
Drilled with Cable Drilling Media Surface Production hole Air Mud Type(s) and Additi SOAP			□ Mud □ Fresh Water □ Brine
Date permit issued	5/26/2013 Date drilling cor	nmenced 10/31/2013 Date	11/4/2013
Date completion activitie		Date completion activities ceased	drilling ceased 11/4/2013
Verbal plugging (Y/N) _	N Date permission grant	red N/A Granted	byN/A
Please note: Operator is	required to submit a plugging appl	ication within 5 days of verbal permis	ssion to plug WV Department of
Freshwater depth(s) ft		Open mine(s) (Y/N) depths	Environmental Protection
Salt water depth(s) ft		Void(s) encountered (Y/N) depths	s N
Coal depth(s) ft	NONE OF RECORD	Cavern(s) encountered (Y/N) depth	
Is coal being mined in are		(2,21) dopt	
			Reviewed by:

API 47- 15	02890	Farm nar	ne_ROBERT	TAYLOR		Wε	ell number_KIN	NG #14	
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)	Did ceme	nt circulate (Y/N) details below*
Conductor	14 1/4"	13 3/8"	30'	NEW		- 42 LBS	NONE		ND -IN BY RIG
Surface	12 1/4"	9 5/8"	377'	NEW		- 29 LBS	120'	3.1.13	
Coal					<u> </u>		120	 	153
Intermediate 1	8 3/4"	7"	1967'	NEW	.1-55	- 17LBS	335'	 	\/F0
Intermediate 2					0 00	- 17200	335	 	YES
Intermediate 3					 				
Production	6 1/4"	4 1/2"	2300'	NEW	1.55	40.51.00			
Tubing			2000	INEVV	J-55 -	10.5 LBS	NONE	ļ	
Packer type and d	epth set				<u> </u>				
Comment Details									
CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)		'ield ³ /sks)	Volume (ft ²)			WOC
Conductor	CLASS I	10 - RIG	"" (PPS)	/	/383)	(11-)	Top (M GROUND		(hrs)
Surface	CLASS I	130	15.6	1	.18		GROUND		8
Coal				<u> </u>			GROUND	LEVEL	8
Intermediate 1	CLASS I	120	15.6	1	.18		CROUND	5.751	
Intermediate 2			10.0		.10		GROUND	LEVEL	8
Intermediate 3			1						
Production	CLASS I	212	15.6	- - 	.40		4.475		
Tubing			10.0		.40		1475		8
Drillers TD (ft	2410'			Loggers TI) (A) 227/	· · · · · · · · · · · · · · · · · · ·			
` '	tion penetrated V	WEIR		Plug back (
Kick off depth	(ft)								
Check all wirel	ine logs run		■ density □ resistivity	□ deviate ■ gamma			nduction emperature	□sonic	
Well cored	Yes No	 Conventional 	ıl Sidewa	.11	We	re cuttings	collected -	Ves =	No
DESCRIBE TI	IE CENTED AT 10								
	E CENTRALIZ	ZER PLACEMEN	T USED FOR	EACH CA	SING ST	RING CE			
							RE	CEIVE	
							Office of	Oilo	
							Office of	On an	d Gas
WAS WELL C	OMPLETED AS	S SHOT HOLE	□ Yes ■ N	o DE	TAILS _		JUN	1 6 2014	
WAS WELL C	OMPLETED OF	PEN HOLE?	Yes • No	DETA	ILS	Er	WV Depa Vironmen	ertmer.	nt of
WERE TRACE	RS USED D V	res No	TVPE OF TP A	CED(C) II	CED.			ai 17101	ection—

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API 47- 15 _ 02890 Farm name_ROBERT TAYLOR _____Well number_KING #14

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/19/13	2111'	2124'	12	INJUN
2	12/19/13	2134'	2138'	2	INJUN
3	12/19/13	2152'	2168'	16	SQUAW

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/20/13	35	2565	2200	1637	20,000	490	0
				†				
				 		 		
								Print day, said
							H	EGEIVED
							Office	EGEIVED of Oil and Gas
							JU	N 1 6 2014
								1
							WV D	epartment of
						T.	- P3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Please insert additional pages as applicable.

Environmental Protection

Title OPERATIONS MANAGER

Boges

Completed by DANIELLE N. BOGGS

Signature \

Date 5/30/2014

Telephone 304-344-9291

State of West Virginia Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work



API <u>47</u> - 15 <u>02891</u> County CLAY		
Quad ELKHURST 7.5' Pad Name	Field/Pool Name	
Farm name WADE HOLDSWORTH, ET. UX.	1/11/0 //0	
Operator (as registered with the OOG) RAVEN RIDGE E	NERGY, LLC	
Address 3230 PENNSYLVANIA AVENUE City CHA		25302
As Drilled location NAD 83/UTM Attach an as-drilled Northing N/A Landing Point of Curve Northing N/A Bottom Hole Northing N/A N/A		
Elevation (ft) 1,250 GL Type of Well	New □ Existing Type of Report □Interim	■Final
Permit Type Deviated Horizontal Horizontal	tal 6A	Shallow
Type of Operation □ Convert □ Deepen ■ Drill □	Plug Back □ Redrilling □ Rework ■ Stimula	ite
Well Type □ Brine Disposal □ CBM ■ Gas ■ Oil □ Sec	ondary Recovery □ Solution Mining □ Storage □ O	other
Type of Completion □ Single ■ Multiple Fluids Product Drilled with □ Cable ■ Rotary	ced ■ Brine ■Gas □ NGL ■ Oil □ Other _	
Drilling Media Surface hole ■ Air □ Mud □ Fresh Water □ Brine Mud Type(s) and Additive(s) SOAP		Water □ Brine
	nenced 10/15/2013 Date drilling ceased 2/10/2014	10/19/2013
Date completion activities began 3/5/2014	Date completion activities ceased 3/19/2014 N/A Granted by N/A	2014—
Verbal plugging (Y/N) N Date permission granted	Statica by	
	WV Depart	
Please note: Operator is required to submit a plugging applica-	ation within 5 days of verbal permission to plug ental	Protection
Freshwater depth(s) ft	Open mine(s) (Y/N) depthsN	
Salt water depth(s) ft 1150' - 1650'	Void(s) encountered (Y/N) depthsN	
Coal depth(s) ft NONE OF RECORD	Cavern(s) encountered (Y/N) depths	J
Is coal being mined in area (Y/N)N		_
	Revie	wed by:

Rev. 8/23/13

Comment Details

Farm name_WADE HOLDSWORTH, ET. UX. Well number_KING #8 API 47- 15 -02891

CASING	Hole	Casing		New or	Grade	Basket	Did cement circulate (Y/N)
STRINGS	Size	Size	Depth	Used	wt/ft	Depth(s)	* Provide details below*
Conductor	14 1/4"	13 3/8"	30'	NEW	J-55 - 42 LBS	NONE	SAND -IN BY RIG
Surface	12 1/4"	9 5/8"	378'	NEW	J-55 - 29 LBS	120'	YES
Coal							
Intermediate 1	8 3/4"	7"	1899'	NEW	J-55 - 17LBS	335'	YES
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2264'	NEW	J-55 - 10.5 LBS	NONE	YES
Tubing							
Packer type and d	epth set						

CEMENT Class/Type Number Slurry Yield Volume Cement WOC of Sacks (ft 3/sks) $(ft^{\frac{3}{2}})$ DATA of Cement Top (MD) wt (ppg) (hrs) Conductor CLASS I 10 - RIG **GROUND LEVEL** 8 Surface CLASS I 120 15.6 1.18 141.6 **GROUND LEVEL** 8 Coal Intermediate 1 CLASS I 300 15.6 1.18 354 **GROUND LEVEL** 8 Intermediate 2 Intermediate 3 Production CLASS I 60 14.2 1.26 75.6 1608' 8 Tubing

Drillers TD (ft) 2293' L			Loggers TD (ft) 2290'			
Deepest formation penetrated so	QUAW	·	Plug back to (ft)			
Plug back procedure						
Kick off depth (ft) N/A		=				
Check all wireline logs run	■ caliper	■ density	□ deviated/directional	■ induction		
·	■ neutron	□ resistivity	🖪 gamma ray	•		
Well cored □ Yes ■ No	Convention	nal Sidewa	ill Were cu	ttings collected □ Yes	_ ■ No	
				At:	CEIVED	
DESCRIBE THE CENTRALIZ	ER PLACEME	NT USED FOR	EACH CASING STRING	GUMICE C	of Oil and Gas	
	-			111	√ 1 6 2014	
WAS WELL COMPLETED AS	S SHOT HOLE	□ Yes 💄 N	No DETAILS	WV De Environme	partment of ental Protection	
WAS WELL COMPLETED OF	PEN HOLE?	□ Yes ■ No	DETAILS			
WERE TRACERS USED	es ■ No	TYPE OF TRA	ACER(S) USED			

API	47- 15 -	02891	Farm name_	WADE HOLDSWORTH, ET. UX.	Well number	KING #8
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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	E(-)
1	12/19/2013	2106'	2126'	20	Formation(s) SQUAW
	12/10/2010	2100	2.20		CQCAV
<u> </u>				-	
<u> </u>		<u>'</u>		 	
				-	

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1_	3/5/2014	35	2695	1307	1639	25,000	900	0
-								

Please insert additional pages as applicable.

Attach copy of FRACFOCUS Registry

Submittal of Hydraulic Fracturing Chemical Disclosure Information

WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

2	1		EX
	DATE:	12/10/13	
1	API #:	47-017-05849	

Farm name: Jeffrey A. Sperry		Opera	ator Well No.: 5	12421	
LOCATION: Elevation: 850'		Quadi	rangle: OXFO	RD	
District: Southwest		Coun	ty: Doddridge		
Latitude: 11,120	Feet South of 39	Deg. 10	Min. 00	Sec.	
Longitude 8,600'	Feet West of 80	Deg. 47	Min. 30	Sec.	

Company: EQT Production Company

Company: EQ1 Production Company				
Address: EQT Plaza, Suite 1700	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
625 Liberty Avenue, Pittsburgh, PA 15222	20	39	39	40
Agent: Cecil Ray	13 3/8	842	842	585
Inspector: David Scranage	9 5/8	2,634	2,634	1,122
Date Permit Issued: 6/3/2009	5 1/2	10,497	10,497	1,349
Date Well Work Commenced: 7/25/2009				
Date Well Work Completed: 11/3/2009				
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 6,333'				
Total Measured Depth (ft): 10,505'				
Fresh Water Depth (ft.): 713'				
Salt Water Depth (ft.): No visible show.				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): No observable coal seams				
Void(s) encountered (N/Y) Depth(s) No				

OI EN TEOW DATA (II III OI E III a	in two producing formations plea	ase include additi	ional data on separate sheet)
Producing formation Marcellus	Pay zone de	epth (ft) 6,178	RECEIVED
Gas: Initial open flow 4368	MCF/d Oil: Initial open flow 0	Bbl/d	Office of Oil and Gas
Final open flow 3576	MCF/d Final open flow 0	Bbl/d	
Time of open flow between	initial and final tests 24	Hours	MAR 0 8 2014
Static rock Pressure 398	psig (surface pressure) after 24	Hours	MI 11 - 2 2 - 1 - 1
			a to take a little and an administration of the state
Second producing formation N	second formation. Pay zone dept	h (ft)	WV Department of
Second producing formation No. 10 Gas: Initial open flow		h (ft) Bbl/d	Environmental Protection
	MCF/d Oil: Initial open flow	Bbl/d	
Gas: Initial open flow	MCF/d Oil: Initial open flow	Bbl/d Bbl/d	
Gas: Initial open flow Final open flow Time of open flow between	MCF/d Oil: Initial open flow MCF/d Final open flow	Bbl/d Bbl/d	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature 3/6/2014
Date

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list MWD, Gamma, and CBL logs. NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH. Perforated Intervals, Fracturing, or Stimulating: See Attachment Plug Back Details Including Plug Type and Depth(s): N/A Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 / 1,404.87 - FRESH WATER ZONE / 1 / 713 / 712 - MAXTON / 1,404.87 / 1,581.1 / 176.23 - BIG LIME / 1,581.07 / 1,658 / 76.93 - KEENER / 1,658.02 / 1,862.9 / 24.88 - BIG INJUN / 1,682.92 / 1,848.8 / 165.88 - WEIR / 1,848.78 / 2,042.8 / 194.02 - BEREA / 2,042.77 / 2,055.1 / 12.33 - GANTZ / 2,055.06 / 2,134.6 / 179.54 - 505 / 2,2134.6 / 2,232.6 / 198 30F / 2,232.56 / 2,276.9 / 44.34 - GORDON / 2,276.86 / 2,378.1 / 101.24 - 4TH / 2,378.05 / 2,532.6 / 154.55 - 5TH / 2,532.6 / 2,559.4 / 26.8 - BAYARD / 2,559.4 / 2.894.1 / 334.66 - WARREN / 2,894.07 / 2,948.7 / 54.63 - B-6 / 6,194.7 / 12,943.9 / 15.19 - SPEECHLEY / 2,963.9 / 13,473.1 / 509.19 - BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 - BALLTOWN B / 3,703.68 / 3,810 / 106.34 - BRADFORD / 3,810.03 / 4,046.4 / 236.37 - BALLTOWN B / 3,703.68 / 3,810 / 106.34 - BRADFORD / 3,810.03 / 4,046.4 / 236.37 - BILLTOWN A / 3,473.15 / 5,804 / 25 - SONYEA / 5,839.96 / 5,983 / 143.04 - MIDDLESEX / 5,983 / 6,040 / 57 - GENESEE / 6,040 / 6,110 / 70 - GENESEO / 6,110 / 6,152 / 42 - TULLY / 6,152 / 6,165 / 13 - HAMILTON / 6,165 / 6,178 / 13 - MARCELLUS BLK SHALE / 6,178 / 6,333 / 155	Were core samples taken? Yes	_No_X	Were	cuttings caught du	ring drilling? Ye	es_X_No
PRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH. Perforated Intervals, Fracturing, or Stimulating: See Attachment Plug Back Details Including Plug Type and Depth(s): N/A Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / 1,404.87 / 1,404.87 - FRESH WATER ZONE / 1 / 713 / 712 - MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 - KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 A LEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13	Were Electrical, Mechanical or Geophy	sical logs record	led on this well? I	f yes, please list M	IWD, Gamma	, and CBL logs.
Plug Back Details Including Plug Type and Depth(s): N/A Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 / 1,404.87 - FRESH WATER ZONE / 1 / 713 / 712 - MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 - KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.9 1 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13	FRACTURING OR STIMULATING DETAILED GEOLOGICAL RECO	G, PHYSICAL ORD OF THE	CHANGE, ETC. TOPS AND BO	2). THE WELL I	LOG WHICH IS LL FORMATION	S A SYSTEMATIC
Plug Back Details Including Plug Type and Depth(s): N/A Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / / 1,404.87 / 1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.7 1 / 2,963.9 / 15.19 SPEECHLEY / 2,963.9 1 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13	Perforated Intervals, Fracturing, or Stin	nulating:				
Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 /1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13	See Attachment					
Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 /1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 /1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 /1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 /1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
Formations Encountered: Top Depth / Bottom Depth Surface: SAND / SHALE / /1,404.87 /1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13	Plug Back Details Including Plug Tyne	and Denth(s): A	.1/^			
SAND / SHALE / / 1,404.87 / 1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13	- I lug Dack Details meluding I lug Type	and Depun(s).	N/A			
SAND / SHALE / / 1,404.87 / 1,404.87 FRESH WATER ZONE / 1 / 713 / 712 MAXTON / 1,404.87 / 1,581.1 / 176.23 BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13			Top Depth	/	Bo	ottom Depth
BIG LIME / 1,581.07 / 1,658 / 76.93 KEENER / 1,658.02 / 1,682.9 / 24.88 BIG INJUN / 1,682.92 / 1,848.8 / 165.88 WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13			TED 70NE / / /	740 4 740		
WEIR / 1,848.78 / 2,042.8 / 194.02 BEREA / 2,042.77 / 2,055.1 / 12.33 GANTZ / 2,055.06 / 2,134.6 / 79.54 50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.9 1 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
50F / 2,134.6 / 2,232.6 / 98 30F / 2,232.56 / 2,276.9 / 44.34 GORDON / 2,276.86 / 2,378.1 / 101.24 4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13					<u></u>	
4TH / 2,378.05 / 2,532.6 / 154.55 5TH / 2,532.6 / 2,559.4 / 26.8 BAYARD / 2,559.44 / 2,894.1 / 334.66 WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
WARREN / 2,894.07 / 2,948.7 / 54.63 B-5 / 2,948.71 / 2,963.9 / 15.19 SPEECHLEY / 2,963.91 / 3,473.1 / 509.19 BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13					<i>'</i>	<u></u>
BALLTOWN A / 3,473.13 / 3,703.7 / 230.57 BALLTOWN B / 3,703.66 / 3,810 / 106.34 BRADFORD / 3,810.03 / 4,046.4 / 236.37 RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13					· · · · · · · · · · · · · · · · · · ·	
RILEY / 4,046.38 / 4,506.8 / 460.42 BENSON / 4,506.78 / 4,728.3 / 221.52 ALEXANDER / 4,728.26 / 5,815 / 1,086.74 RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13		·	<u> </u>		· · · · · · · · · · · · · · · · · · ·	
RHINESTREET / 5,815 / 5,840 / 25 SONYEA / 5,839.96 / 5,983 / 143.04 MIDDLESEX / 5,983 / 6,040 / 57 GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13					· · · · · · · · · · · · · · · · · · ·	
GENESSEE / 6,040 / 6,110 / 70 GENESEO / 6,110 / 6,152 / 42 TULLY / 6,152 / 6,165 / 13						
HAMILTON / 6,165 / 6,178 / 13 MARCELLUS BLK SHALE / 6,178 / 6,333 / 155			<u>.</u>			
	HAMILTON / 6,165 / 6,178 / 13	MARCELL	LUS BLK SHAI	∟E / 6,178 / 6,3	33 / 155	

512421 - Perforations

Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft
1	11/20/2009	10,184.00	NA	10,213.00	10,334.00	4
2	2/4/2010	9,884.00	10,184.00	9,913.00	10,034.00	4
3	2/5/2010	9,584.00	9,884.00	9,613.00	9,734.00	4
4	2/9/2010	9,284.00	9,584.00	9,313.00	9,434.00	4
5	2/10/2010	8,984.00	9,284.00	9,013.00	9,134.00	4
6	2/11/2010	8,684.00	8,984.00	8,713.00	8,834.00	4
7	2/12/2010	8,384.00	8,684.00	8,413.00	8,534.00	4
8	2/12/2010	8,084.00	8,384.00	8,113.00	8,234.00	4
9	2/12/2010	7,784.00	8,084.00	7,813.00	7,934.00	4
10	2/13/2010	7,484.00	7,784.00	7,513.00	7,634.00	4
11	2/14/2010	NA	7,484.00	7,213.00	7,334.00	4

512421 - Stimulated Stages

Zone/Stage	P Break (psi)	Avg Treat Pressure (psi)	Avg rate (bbl/min)	ISIP (psi)	15 Min. SIP (psi)	Fluid Volume (bbl)	Date	Proppant (lb)
1	7,584.00	8,903.00	83.0	4,968.00	3,202.00	9,587	2/4/2010	392,207
2	7,250.00	8,641.00	93.0	5,680.00	4,100.00	10,201	2/4/2010	450,346
3	6,555.00	8,298.00	86.0	5,662.00	3,725.00	9,868	2/9/2010	416,423
4	6,840.00	8,078.00	94.0	5,291.00	4,169.00	9,802	2/10/2010	408,065
5	6,388.00	8,207.00	90.0	3,836.00	3,175.00	9,826	2/11/2010	402,235
6	6,545.00	7,803.00	98.0	3,940.00	3,310.00	9,858	2/11/2010	415,692
7 7	7,735.00	7,558.00	93.0	4,251.00	3,328.00	9,820	2/12/2010	414,478
8	6,240.00	7,800.00	91.0	4,200.00	3,535.00	9,915	2/12/2010	407,896
9	5,816.00	7,793.00	88.0	3,980.00	3,110.00	9,544	2/12/2010	408,079
10	5,121.00	7,862.00	94.0	3,848.00	2,991.00	9,736	2/14/2010	405,018
11	6,563.00	7,399.00	87.0	3,489.00	2,806.00	10,157	2/14/2010	405,963

WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: 12/10/13 API #: 47-017-05857

arm name: I.L. Morris	Operator Wel	1 No.: <u>512447</u>		
OCATION: Elevation: 1,250'	Quadrangle:	Oxford		
District: Southwest	County: Dod			
Latitude: 2,440 Feet South of 39 Deg. Longitude 7,180 Feet West of 80 Deg.				
Longitude 7,100 Feet West of 00 Deg.		. <u>30</u> Se	c.	
Company: EQT Production Company				
Address: EQT Plaza, Suite 1700	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
625 Liberty Avenue, Pittsburgh, PA 15222	20	42	42	40
Agent: Cecil Ray	13 3/8	981	981	912
Inspector: David Scranage	9 5/8	3,145	3,145	1,171
Date Permit Issued: 7/30/09	5 1/2	10,249	10,249	1,497
Date Well Work Commenced: 2/28/10				
Date Well Work Completed: 5/3/2010				
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig V				
Total Vertical Depth (ft): 6,707'				
Total Measured Depth (ft): 10,377'				
Fresh Water Depth (ft.): 120', 610'				
Salt Water Depth (ft.): 1,470'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 99', 616', 920'			RECE	
Void(s) encountered (N/Y) Depth(s) No			Office of O	ll and Gas
OPEN FLOW DATA (If more than two producing formation	ons please incluzone depth (ft)		ata on semalate Si	& 2014
Gas: Initial open flow 1,955 MCF/d Oil: Initial open flow Final open flow MCF/d Final open flow Time of open flow between initial and final tests 49.5	ow_0 B	bl/d	WV Depa Environment	ertment of tal Protectio

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Final open flow Bbl/d

Bbl/d

Signature

MCF/d Oil: Initial open flow_____

_____psig (surface pressure) after _____Hours

Second producing formation No second formation Pay zone depth (ft)

Gas: Initial open flow

Static rock Pressure_

Final open flow MCF/d

Time of open flow between initial and final tests_

3/6/2014 Date

Were core samples taken? Yes	No_ X	Wer	e cuttings caught dur	ring drilling? Yes_X	No
Were Electrical, Mechanical or Geo	physical logs record	led on this well?	If yes, please list M	WD, Gamma, & C	BL logs
NOTE: IN THE AREA BELO FRACTURING OR STIMULAT DETAILED GEOLOGICAL RI COAL ENCOUNTERED BY TH	ING, PHYSICAL (ECORD OF THE	CHANGE, ETO TOPS AND I	C. 2). THE WELL I BOTTOMS OF AL	LOG WHICH IS A ST LL FORMATIONS,	YSTEMATIC
Perforated Intervals, Fracturing, or S	Stimulating:				
See Attachment					
Plug Back Details Including Plug Ty	vne and Denth(s): N				
		1/A			
Formations Encountered: Surface:		Top Depth	/	Bottom I	<u>Depth</u>
Surface.					
SAND / SHALE / / 99 / 99	FRESH W	ATER ZON	E / 1 / 610 / 609	9 COAL / 99	/103/4
SAND / SHALE / 103 / 616	/513 COAI	L / 616 / 620	/4 SAND/	SHALE / 620 / 9	20 / 300
COAL / 920 / 924 / 4 SAND) / SHALE / 924 /	/ 1,746.8 / 822	2.8 MAXTON	/ 1,746.84 / 1,942.9	9 / 196.06
BIG LIME / 1,942.9 / 2,003.56 / 60.6	6 KEENER / 2,0	003.56 / 2,031.72	2 / 28.16 BIG INJ	JUN / 2,031.72 / 2,242	.94 / 211.22
WEIR / 2,242.94 / 2,441.16 / 198.	22 BEREA / 2,	441.16 / 2,449	.83 / 8.67 GAN	TZ / 2,449.83 / 2,520	.24 / 70.41
50F / 2,520.24 / 2,632.89 / 112.6	55 30F / 2,632.	89 / 2,683.8 / 9	50.91 GORDOI	N / 2,683.8 / 2,792.1	1 / 108.31
4TH / 2,792.11 / 2,931.84 / 139.7	'3 5TH / 2,931.	.84 / 2,974.09	42.25 BAYAR	D / 2,974.09 / 3,305	.9 / 331.81
WARREN / 3,305.9 / 3,381.6 / 75.7 -	- SPEECHLEY / 3,3	381.6 / 3,879.35	/ 497.75 BALLTO	WN A / 3,879.35 / 4,02	26.15 / 146.8
BALLTOWN B / 4,026.15 / 4,264.7 / 2	238.55 BRADFO	RD / 4,264.7 / 4,5	504.02 / 239.32 R	ILEY / 4,504.02 / 4,927	'.61 / 423.59
BENSON / 4,927.61 / 5,172.05 / 244.4	14 – ALEXANDER	/ 5,172.05 / 6,304	4.66 / 1,132.61 SC	ONYEA / 6,304.66 / 6,45	55.06 / 150.4
MIDDLESEX / 6,455.06 / 6,508.66 / 5	3.6 GENESSEE	/ 6,508.66 / 6,58	1.27 / 72.61 GEN	ESEO / 6,581.27 / 6,61	6.19 / 34.92
TULLY / 6,616.19 / 6,631.88 / 15.69	HAMILTON / 6,631.	.88 / 6,644.83 / 12	2.95 MARCELLUS	BLK SHALE / 6,644.83	3 / 6,707 / 62.17

512447 - Perforations								
Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft		
1	8/3/2010	9,977.00	NA	10,006.00	10,248.00	4		
2 2	5/10/2011	9,677.00	9,977.00	9,706.00	9,948.00	4		
3	5/11/2011	9,377.00	9,677.00	9,406.00	9,648.00	4		
4	5/11/2011	9,077.00	9,377.00	9,106.00	9,348.00	4		
5	5/12/2011	8,777.00	9,077.00	8,806.00	9,048.00	4		
6 .	5/12/2011	8,477.00	8,777.00	8,506.00	8,748.00	4		
7	5/12/2011	8,177.00	8,477.00	8,206.00	8,448.00	4		
8	5/13/2011	7,877.00	8,177.00	7,906.00	8,148.00	4		
9	5/13/2011	7,577.00	7,877.00	7,606.00	7,848.00	4		
10	5/13/2011	7,277.00	7,577.00	7,306.00	7,548.00	4		
11	5/15/2011	6,992.00	7,277.00	7,006.00	7,248.00	4		
12	5/15/2011	NA NA	6,992.00	6,856.00	6,978.00	4		

512447 - Stimulated Stages

Zone/Stage	P Break (psi)	Avg Treat Pressure (psi)	Avg rate (bbl/min)	ISIP (psi)	15 Min. SIP (psi)	Fluid Volume (bbl)	Date	Proppant (lb)
1	4,606.00	6,422.00	100.0	2,146.00	1,725.00	9,779	5/10/2011	406,391
2 2	4,294.00	6,129.00	102.0	2,892.00	1,791.00	9,832	5/11/2011	404,000
3	4,253.00	5,771.00	102.0	2,774.00	1,913.00	9,781	5/11/2011	411,354
4	4,214.00	5,931.00	103.0	2,691.00	1,821.00	9,690	5/11/2011	409,869
5 .	3,947.00	5,684.00	102.0	2,528.00	2,114.00	9,643	5/12/2011	405,720
6	4,485.00	5,914.00	102.0	2,664.00	2,213.00	9,545	5/12/2011	403,763
7	3,639.00	5,197.00	102.0	2,865.00	2,322.00	9,772	5/13/2011	406,819
8	4,265.00	5,466.00	102.0	3,099.00	2,561.00	9,984	5/13/2011	401,502
9	6,268.00	5,641.00	102.0	3,189.00	2,666.00	9,896	5/13/2011	404,770
10	5,678.00	5,457.00	101.0	3,499.00	3,084.00	10,314	5/15/2011	407,513
11	4,607.00	5,717.00	102.0	3,486.00	2,681.00	9,725	5/15/2011	406,650
12	5,502.00	6,633.00	103.0	5,524.00	2,523.00	4,937	5/15/2011	207,629

WR-35 Rev (9-11)

State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

		-
DATE:	12/10/13	
API#:	47-017-05881	

Farm name: I.L. Morris		Opera	ator Well No.: 5	12448	
LOCATION: Elevation: 1,250'		Quad	rangle: Oxford		
District: Southwest		Coun	ty: Doddridge,	, WV	
Latitude: 2,395'	Feet South of 39	Deg. 12	Min. 30	Sec.	
Longitude 7,180'	Feet West of 80	Deg. 47	Min. 30	Sec.	

Company: EQT Ploduction Company Address: EQT Plaza, Suite 1700	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
625 Liberty Avenue, Pittsburgh, PA 15222	20	42	42	40
Agent: Cecil Ray	13 3/8	981	981	795
Inspector: David Scranage	9 5/8	3,143	3,143	1,136
Date Permit Issued: 10/27/2009	5 1/2	12,080	12,080	2,001
Date Well Work Commenced: 3/19/10				
Date Well Work Completed: 6/16/10				
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 6,686'				
Total Measured Depth (ft): 12,085'				
Fresh Water Depth (ft.): 108', 598'				
Salt Water Depth (ft.): 1,470'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 99', 616', 920'	/-			
Void(s) encountered (N/Y) Depth(s) No				

OPEN FLOW DATA (If more th	an two producing formations plea	se include additional data or	n separate sheet)
Producing formation Marcellus	Pay zone de	oth (ft) <u>6,644</u>	
Gas: Initial open flow 9,325	MCF/d Oil: Initial open flow 0	Bbl/d	
Final open flow 8,357	MCF/d Final open flow 0	Bbl/d	
Time of open flow betwee	n initial and final tests 39.5	_Hours	Office of Oil and Ga
Static rock Pressure 1,112	_psig (surface pressure) after 44.5	Hours	Office of O
			on oil and Ga
Second producing formation [No second formation. Pay zone depth	n (ft)	MADTO
Gas: Initial open flow	MCF/d Oil: Initial open flow	Bbl/d	MAR I 2 2014
Final open flow	MCF/d Final open flow	Bbl/d	1 4 42
Time of open flow between	n initial and final tests	_Hours	nvironment of
Static rock Pressure	_psig (surface pressure) after	Hours	illiental Proto-
			Department of Protection

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete

Signature

3/11/2014 Date

Were core samples taken? YesNo_X	Were cuttings caught during drilling? Yes_X No
Were Electrical, Mechanical or Geophysical logs reco	orded on this well? If yes, please list MWD, Gamma, & CBL logs
NOTE: IN THE AREA BELOW PUT THE FRACTURING OR STIMULATING, PHYSICAL	E FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, IL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC HE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING
Perforated Intervals, Fracturing, or Stimulating:	
See Attachment	
Plug Back Details Including Plug Type and Depth(s):	N/A
Formations Encountered: Surface:	Top Depth / Bottom Depth
Sand / Shale / 0 / 99 / 99 Coal / 99 / 103	3/4
	al / 616 / 620 / 4 Sand / Shale / 620 / 920 / 300
	/ 1,746.8 / 822.8 Maxton / 1,746.84 / 1,942.9 / 196.06
	/ 2,031.72 / 2,242.94 / 211.22 Weir / 2,242.94 / 2,441.16 / 198.22
	2,520.24 / 2,632.89 / 112.65 Thirty foot / 2,632.89 / 2,683.8 / 50.91
Gordon / 2,683.8 / 2,792.11 / 108.31 Forth Sand	1/2,792.11/2,931.84/139.73 Bayard/2,974.09/3,305.9/331.81
Warren / 3,305.9 / 3,381.6 / 75.7 Speechley / 3,	,381.6 / 3,879.35 / 497.75 Balltown A / 3,879.35 / 4,026.15 / 146.8
Riley / 4,504.02 / 4,927.61 / 423.59 Benson / 4,92	27.61 / 5,172.05 / 244.44 Alexander / 5,172.05 / 6,304.66 / 1,132.61
Sonyea / 6,304.66 / 6,455.06 / 150.4 Middlesex	/ 6,455.06 / 6,508.66 / 53.6 Genesee / 6,508.66 / 6,581.27 / 72.61
Geneseo / 6,581.27 / 6,616.19 / 34.92 Tully / 6	5,616.19 / 6,631.88 / 15.69 Hamilton / 6,631.88 / 6,644.83 / 12.95
Marcellus / 6,644.83 / 6,686 / 42.17	

512448 - Perforations

Zone/Stage	Date	Top Plug Depth (ftKB)	Bottom Plug Depth (ftKB)	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Shots/ft
1	8/4/2010	11,756.00	NA NA	11,785.00	12,027.00	4
2	4/30/2011	11,456.00	11,756.00	11,485.00	11,727.00	4
3	4/30/2011	11,156.00	11,456.00	11,185.00	11,427.00	4
4	5/1/2011	10,856.00	11,156.00	10,885.00	11,127.00	4
5	5/1/2011	10,556.00	10,856.00	10,585.00	10,827.00	4
6	5/2/2011	10,256.00	10,556.00	10,285.00	10,527.00	4
7	5/2/2011	9,956.00	10,256.00	9,985.00	10,227.00	4
8	5/3/2011	9,656.00	9,956.00	9,685.00	9,927.00	4
9	5/3/2011	9,356.00	9,656.00	9,385.00	9,627.00	4
10	5/4/2011	9,056.00	9,356.00	9,085.00	9,327.00	4
11	5/4/2011	8,756.00	9,056.00	8,785.00	9,027.00	4
12	5/5/2011	8,456.00	8,756.00	8,485.00	8,727.00	4
13	5/5/2011	8,156.00	8,456.00	8,185.00	8,427.00	4
14	5/6/2011	7,856.00	8,156.00	7,885.00	8,127.00	4
15	5/7/2011	7,556.00	7,856.00	7,585.00	7,827.00	4
16	5/8/2011	7,256.00	7,556.00	7,285.00	7,527.00	4
17	5/8/2011	NA	7,256.00	6,985.00	7,227.00	4

512448 - Stimulated Stages

Zone/Stage	P Break (psi)	Avg Treat Pressure (psi)	Avg rate (bbl/min)	ISIP (psi)	15 Min. SIP (psi)	Fluid Volume (bbl)	Date	Proppant (lb)
1	4,860.00	6,827.00	101.0	3,020.00	2,146.00	10,267	4/30/2011	418,964
2	5,489.00	7,443.00	101.0	2,975.00	2,265.00	10,411	4/30/2011	407,173
3	5,912.00	7,670.00	101.0	3,157.00	2,337.00	10,429	5/1/2011	403,522
4	5,544.00	6,850.00	101.0	3,383.00	2,353.00	11,319	5/1/2011	409,311
5	5,551.00	7,353.00	100.0	3,731.00	2,353.00	10,098	5/2/2011	408,054
6	5,110.00	7,321.00	97.0	3,291.00	2,215.00	11,561	5/2/2011	395,955
7	5,476.00	7,797.00	100.0	3,027.00	2,200.00	9,552	5/3/2011	404,899
8	5,317.00	7,451.00	100.0	3,435.00	2,126.00	10,695	5/3/2011	410,898
9	5,393.00	7,092.00	102.0	3,072.00	2,045.00	10,421	5/4/2011	421,604
10	5,372.00	6,926.00	103.0	2,961.00	2,154.00	10,286	5/4/2011	406,269
11	5,573.00	6,797.00	102.0	2,798.00	2,056.00	10,059	5/5/2011	400,476
12	4,926.00	6,620.00	100.0	2,926.00	2,106.00	9,990	5/5/2011	401,162
13	5,163.00	6,593.00	95.0	2,906.00	2,169.00	11,492	5/6/2011	408,461
14	5,302.00	6,820.00	102.0	3,041.00	2,272.00	10,752	5/7/2011	401,926
15	5,655.00	6,630.00	102.0	2,998.00	2,325.00	10,012	5/8/2011	406,302
16	5,250.00	6,471.00	101.0	2,889.00	2,342.00	9,794	5/8/2011	405,985
17	5,905.00	6,616.00	100.0	2,656.00	2,257.00	10,535	5/9/2011	405,879